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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/812,429	03/20/2001	Laurent Herrmann	PHFR 000087	9844

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EXAMINER	
HO, CHUONG T	

ART UNIT	PAPER NUMBER
2616	

DATE MAILED: 03/27/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/812,429	HERRMANN ET AL.	
	Examiner	Art Unit	
	CHUONG T. HO	2664	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *09 January 2006*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

1. Amendment filed 01/09/06 have been entered and made of record.

Response to Arguments

2. Applicant's arguments filed 01/09/06 have been fully considered but they are not persuasive. In the page 15, the Applicant alleged that "Robinett (6,831,892), Ito (6,377,309), and combination thereof, do not teach or suggest "means for generating an intermediate transport stream by creating available bandwidth in said input transport stream," as recited in independent claim 1, and similarly recited in independent claims 6 and 11."

The Applicant 's argument is not persuasive.

See page 10, lines 26-28, Robinett (6,831,892) discloses "means for generating an intermediate transport stream by creating available bandwidth in said input transport stream," (see col. 10, lines 26-28, According to yet another embodiment, a method is provided **for optimizing the bandwidth of a TS which has null transport packet inserted therein**...Each of the null transport packets is inserted into a time slot of the received TS to maintain the predetermined bit rate of the TS when none of the compressed program data bearing transport packets are available for insertion into the received TS at the respective transport packet time slot). Clearly, Robinett (6,831,892) discloses "means for generating an intermediate transport stream by creating available bandwidth in said input transport stream,".

3. Claims 1-14 are pending.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

1. Claims 1-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over Robinett et al. (U.S.Patent No. 6,831,892) in view of Ito et al. (U.S.Patent No. 6,377,309 B1).

Regarding to claim 1, see figure 1, Robineet et al. (U.S.Patent No. 6,831,892) discloses an illustrative application of the invention is the remultiplexing one or more MPEG-2 compliant transport stream (TSs). TSs are bit streams that contain the data of one or more compressed/encoded audio-video programs (see col. 6, lines 9-11). A system is provided for optimizing the bandwidth of a TS (transport stream) which has null transport packets inserted therein. The first interface (adaptor) receives a TS at predetermined bit rate, which TS includes variably compressed program data bearing transport packets and one or more null transport packets. Each of the null transport packets is inserted into a time slot of the received TS to maintain the predetermined bit rate of the TS when none of the compressed program data bearing transport packet are available for insertion into the received TS at the respective transport packet time slot. The processor selectively replaces one or more the null transport packets with

another to be remultiplexed data bearing transport packet (see col. 10, lines 28-40); comprising:

- For generating an intermediate transport stream by creating available bandwidth in input transport stream (MPEG-2 transport stream) (see col. 10, lines 28-40, A system is provided for optimizing the bandwidth of a TS (transport stream) which has null transport packets inserted therein. The first interface (adaptor) receives a TS at predetermined bit rate, which TS includes variably compressed program data bearing transport packets and one or more null transport packets. Each of the null transport packets is inserted into a time slot of the received TS to maintain the predetermined bit rate of the TS when none of the compressed program data bearing transport packet are available for insertion into the received TS at the respective transport packet time slot.).

However, Robinett et al. is silent to disclosing for inserting of second type (MPEG-4) the available bandwidth of intermediate transport stream, thereby generating output transport stream.

See figures 21, 27, 30, Ito et al. discloses MPEG2 transport stream structure, i.e., the transmission format of an MPEG2 datastream. A method of multiplexing an MPEG4 datastream in an MPEG2 datastream (see col. 16, lines 60-67); comprising:

- A server intended for generating, from an input transport stream of a first type (MPEG2) and from data of a second type (MPEG 4), and output transport stream of first type (MPEG2) which notably carries data of second type (MPEG4), server having:

- For inserting data of second type (MPEG4) the available bandwidth of intermediate transport stream, thereby generating output transport stream (MPEG2) (see figure 21, figure 27, figure 30, col. 17, lines 5-32).

Both Robinett et al. and Ito discloses MPEG-2 transport streams. Ito recognizes for inserting of second type (MPEG-4) the available bandwidth of intermediate transport stream, thereby generating output transport stream. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Robinett with the teaching of Ito to insert of second type (MPEG-4) the available bandwidth of intermediate transport stream, thereby generating output transport stream in order to improve the current digital TV broadcast system.

2. Regarding to claim 6, see figure 1, Robineet et al. (U.S.Patent No. 6,831,892) discloses an illustrative application of the invention is the remultiplexing one or more MPEG-2 compliant transport stream (TSs). TSs are bit streams that contain the data of one or more compressed/encoded audio-video programs (see col. 6, lines 9-11). A system is provided for optimizing the bandwidth of a TS (transport stream) which has null transport packets inserted therein. The first interface (adaptor) receives a TS at predetermined bit rate, which TS includes variably compressed program data bearing transport packets and one or more null transport packets. Each of the null transport packets is inserted into a time slot of the received TS to maintain the predetermined bit rate of the TS when none of the compressed program data bearing transport packet are available for insertion into the received TS at the respective transport packet time slot. The processor selectively replaces one or more the null transport packets with

another to be remultiplexed data bearing transport packet (see col. 10, lines 28-40); comprising:

- For generating an intermediate transport stream by creating available bandwidth in input transport stream (MPEG-2 transport stream) (see col. 10, lines 28-40, A system is provided for optimizing the bandwidth of a TS (transport stream) which has null transport packets inserted therein. The first interface (adaptor) receives a TS at predetermined bit rate, which TS includes variably compressed program data bearing transport packets and one or more null transport packets. Each of the null transport packets is inserted into a time slot of the received TS to maintain the predetermined bit rate of the TS when none of the compressed program data bearing transport packet are available for insertion into the received TS at the respective transport packet time slot.).

However, Robinett et al. is silent to disclosing for inserting of second type (MPEG-4) the available bandwidth of intermediate transport stream, thereby generating output transport stream.

See figures 21, 27, 30, Ito et al. (U.S.Patent No. 6,377,309 B1) discloses MPEG2 transport stream structure, i.e., the transmission format of an MPEG2 datastream. A method of multiplexing an MPEG4 datastream in an MPEG2 datastream (see col. 16, lines 60-67); comprising:

- A server intended for generating, from an input transport stream of a first type (MPEG2) and from data of a second type (MPEG 4), and output transport stream

of first type (MPEG2) which notably carries data of second type (MPEG4), server having:

- For inserting data of second type (MPEG4) the available bandwidth of intermediate transport stream, thereby generating output transport stream (MPEG2) (see figure 21, figure 27, figure 30, col. 17, lines 5-32).

Both Robinett et al. and Ito discloses MPEG-2 transport streams. Ito recognizes for inserting of second type (MPEG-4) the available bandwidth of intermediate transport stream, thereby generating output transport stream. Thus, it would have been obvious to one of ordinary skill in the art at the time of the invention to modify the system of Robinett with the teaching of Ito to insert of second type (MPEG-4) the available bandwidth of intermediate transport stream, thereby generating output transport stream in order to improve the current digital TV broadcast system.

3. In the claims 2, 7, Robinett et al. discloses wherein input transport stream carries control information, and server has third means, upstream of second means, for updating control information to take data of second type into account (see col. 33, lines 55-62).

4. In the claims 3, 8, Robinett et al. discloses wherein transport stream of the first type (MPEG-2) are composed of transport packets, and the creation of available bandwidth is made by inserting null packets into the input transport stream, so that intermediate transport stream has a higher bit rate than input transport stream (see col. 6, lines 9-11, an illustrative application of the invention is the remultiplexing one or more MPEG-2 compliant transport stream (TSs). TSs are bit streams that contain the data of

one or more compressed/encoded audio-video programs (see col. 6, lines 9-11). A system is provided for optimizing the bandwidth of a TS (transport stream) which has null transport packets inserted therein. The first interface (adaptor) receives a TS at predetermined bit rate, which TS includes variably compressed program data bearing transport packets and one or more null transport packets. Each of the null transport packets is inserted into a time slot of the received TS to maintain the predetermined bit rate of the TS when none of the compressed program data bearing transport packet are available for insertion into the received TS at the respective transport packet time slot. The processor selectively replaces one or more the null transport packets with another to be remultiplexed data bearing transport packet (see col. 10, lines 28-40)).

5. In the claims 4, 9, 14, Robinett et al. discloses transport streams of the first type (MPEG-2) are composed of transport packets, input transport stream carries a plurality of element streams (PID) containing encoded data, and the creation of available bandwidth is made by is made by: selecting one or more elementary stream (s) in input transport stream, demultiplexing the selected elementary stream (s), transcoding the encoded data contained in the demultiplexed elementary stream (s) in order to reduce the bit rate they occupy and remultiplexing (see col. 4, lines 62-67, col. 5, lines 1-12) transcoded data while inserting null transport packets so that the generated intermediate transport stream has a bit rate that is smaller or equal to the bit rate of the input transport stream (see col. 10, lines 27-40).

6. In the claim 5, Ito et al. discloses a broadcast system comprising at least a server as claimed in one of claims 1 or 2 and a client terminal intended to receive the output

transport stream delivered by server and to retrieve the data carried in this transport stream in view of a use in a client application (see col. 18, lines 40-52).

7. In the claim 10, Ito et al. discloses a computer program means for implementing a method as claimed in one of claims 6 or 7 (see col. 22, lines 27, claim 15).

8. In the claim 11, see figure 1, Robineet et al. (U.S.Patent No. 6,831,892) discloses an illustrative application of the invention is the remultiplexing one or more MPEG-2 compliant transport stream (TSs). TSs are bit streams that contain the data of one or more compressed/encoded audio-video programs (see col. 6, lines 9-11). A system is provided for optimizing the bandwidth of a TS (transport stream) which has null transport packets inserted therein. The first interface (adaptor) receives a TS at predetermined bit rate, which TS includes variably compressed program data bearing transport packets and one or more null transport packets. Each of the null transport packets is inserted into a time slot of the received TS to maintain the predetermined bit rate of the TS when none of the compressed program data bearing transport packet are available for insertion into the received TS at the respective transport packet time slot. The processor selectively replaces one or more the null transport packets with another to be remultiplexed data bearing transport packet (see col. 10, lines 28-40); comprising:

- For generating an intermediate transport stream by creating available bandwidth in input transport stream (MPEG-2 transport stream) (see col. 10, lines 28-40, A system is provided for optimizing the bandwidth of a TS (transport stream) which has null transport packets inserted therein. The first interface (adaptor) receives

a TS at predetermined bit rate, which TS includes variably compressed program data bearing transport packets and one or more null transport packets. Each of the null transport packets is inserted into a time slot of the received TS to maintain the predetermined bit rate of the TS when none of the compressed program data bearing transport packet are available for insertion into the received TS at the respective transport packet time slot.).

However, Robinett et al. is silent to disclosing for inserting of second type (MPEG-4) the available bandwidth of intermediate transport stream, thereby generating output transport stream.

See figures 21, 27, 30, Ito et al. discloses MPEG2 transport stream structure, i.e., the transmission format of an MPEG2 datastream. A method of multiplexing an MPEG4 datastream in an MPEG2 datastream (see col. 16, lines 60-67); comprising:

- A server intended for generating, from an input transport stream of a first type (MPEG2) and from data of a second type (MPEG 4), and output transport stream of first type (MPEG2) which notably carries data of second type (MPEG4), server having:
- For inserting data of second type (MPEG4) the available bandwidth of intermediate transport stream, thereby generating output transport stream (MPEG2) (see figure 21, figure 27, figure 30, col. 17, lines 5-32).

Both Robinett et al. and Ito discloses MPEG-2 transport streams. Ito recognizes for inserting of second type (MPEG-4) the available bandwidth of intermediate transport stream, thereby generating output transport stream. Thus, it would have been obvious

to one of ordinary skill in the art at the time of the invention to modify the system of Robinett with the teaching of Ito to insert of second type (MPEG-4) the available bandwidth of intermediate transport stream, thereby generating output transport stream in order to improve the current digital TV broadcast system.

9. In the claim 12, see figure 1, Robineet et al. (U.S.Patent No. 6,831,892) discloses an illustrative application of the invention is the remultiplexing one or more MPEG-2 compliant transport stream (TSs). TSs are bit streams that contain the data of one or more compressed/encoded audio-video programs (see col. 6, lines 9-11). A system is provided for optimizing the bandwidth of a TS (transport stream) which has null transport packets inserted therein. The first interface (adaptor) receives a TS at predetermined bit rate, which TS includes variably compressed program data bearing transport packets and one or more null transport packets. Each of the null transport packets is inserted into a time slot of the received TS to maintain the predetermined bit rate of the TS when none of the compressed program data bearing transport packet are available for insertion into the received TS at the respective transport packet time slot. The processor selectively replaces one or more the null transport packets with another to be remultiplexed data bearing transport packet (see col. 10, lines 28-40); comprising:

- For generating an intermediate transport stream by creating available bandwidth in input transport stream (MPEG-2 transport stream) (see col. 10, lines 28-40, A system is provided for optimizing the bandwidth of a TS (transport stream) which has null transport packets inserted therein. The first interface (adaptor) receives

a TS at predetermined bit rate, which TS includes variably compressed program data bearing transport packets and one or more null transport packets. Each of the null transport packets is inserted into a time slot of the received TS to maintain the predetermined bit rate of the TS when none of the compressed program data bearing transport packet are available for insertion into the received TS at the respective transport packet time slot.).

However, Robinett et al. is silent to disclosing for inserting of second type (MPEG-4) the available bandwidth of intermediate transport stream, thereby generating output transport stream.

See figures 21, 27, 30, Ito et al. discloses MPEG2 transport stream structure, i.e., the transmission format of an MPEG2 datastream. A method of multiplexing an MPEG4 datastream in an MPEG2 datastream (see col. 16, lines 60-67); comprising:

- A server intended for generating, from an input transport stream of a first type (MPEG2) and from data of a second type (MPEG 4), and output transport stream of first type (MPEG2) which notably carries data of second type (MPEG4), server having:
- For inserting data of second type (MPEG4) the available bandwidth of intermediate transport stream, thereby generating output transport stream (MPEG2) (see figure 21, figure 27, figure 30, col. 17, lines 5-32).

Both Robinett et al. and Ito discloses MPEG-2 transport streams. Ito recognizes for inserting of second type (MPEG-4) the available bandwidth of intermediate transport stream, thereby generating output transport stream. Thus, it would have been obvious

to one of ordinary skill in the art at the time of the invention to modify the system of Robinett with the teaching of Ito to insert of second type (MPEG-4) the available bandwidth of intermediate transport stream, thereby generating output transport stream in order to improve the current digital TV broadcast system.

10. In the claim 13, Robinett et al. discloses wherein said available bandwidth is created by inserting null packets into said input transport stream (see col. 10, lines 26-28);

However, Robinett is silent to disclosing so that intermediate transport stream has a higher bit rate than input transport stream.

Ito discloses so that intermediate transport stream has a higher bit rate than input transport stream (see col. 3, lines 40-48, in this embodiment, main information of TV broadcast is sent by efficiently multiplexing sound data including image and/or sound data in a predetermined field in the main information as sub information, and the receiving side receives and reproduces the main information and sub information. As the data formats of the main information and sub information, main image information uses an MPEG2 datastream of digital TV broadcast, and the sub information uses an MPEG4 datastream which has been standardized in recent years and has very high transmission efficiency).

Both Robinett et al. and Ito discloses MPEG-2 transport streams. Ito recognizes for inserting of second type (MPEG-4) the available bandwidth of intermediate transport stream, thereby generating output transport stream; intermediate transport stream has a higher bit rate than input transport stream. Thus, it would have been obvious to one of

ordinary skill in the art at the time of the invention to modify the system of Robinett with the teaching of Ito to provide intermediate transport stream has a higher bit rate than input transport stream in order to improve the current digital TV broadcast system.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to CHUONG T. HO whose telephone number is (571) 272-3133. The examiner can normally be reached on 8:00 am to 4:00 pm.

The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

03/14/06

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